1 2 3 4 5 6 7 IN THE UNITED STATES DISTRICT COURT WESTERN DISTRICT OF WASHINGTON 8 AT SEATTLE 9 APPISTRY, INC., 10 Plaintiff, Case No. 11 v. PLAINTIFF'S COMPLAINT 12 AMAZON.COM, INC. AND AMAZON WEB SERVICES, INC., **JURY TRIAL DEMANDED** 13 Defendants. 14 15 16 Appistry, Inc. files this Complaint against Amazon.com, Inc. and Amazon Web 17 Services, Inc. (collectively "Amazon" or "Defendants") for infringement of U.S. Patent No. 18 8,682,959 (the "'959 patent") and U.S. Patent No. 9,049,267 (the "'267 patent") (collectively 19 the "Asserted Patents"). 20 THE PARTIES 21 Appistry, Inc. ("Appistry") is a Delaware corporation with its principal place of 22 business at 1141 South 7th St., Suite 300, St. Louis, Missouri 63104. 23 2. Defendant Amazon.com, Inc. ("Amazon.com") is a Delaware corporation with 24 its principal place of business at 410 Terry Avenue North, Seattle, Washington 98109. 25 3. Defendant Amazon Web Services, Inc. is a Delaware corporation with its 26 principal place of business located at 410 Terry Avenue North, Seattle, Washington 98109. 27 LANE POWELL PC PLAINTIFF'S COMPLAINT - 1

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JURISDICTION AND VENUE

- 4. This is an action for patent infringement under Title 35 of the United States Code. Appistry is seeking injunctive relief as well as damages.
- 5. Jurisdiction is proper in this Court pursuant to 28 U.S.C. §§ 1331 (federal question) and 1338(a) (patents), because this is a civil action for patent infringement arising under the United States patent statutes, 35 U.S.C. § 101 et seq.
- 6. This Court has personal jurisdiction over Amazon.com because Amazon.com has committed, and continues to commit, acts of infringement in the State of Washington, has its principal place of business in the State of Washington, has conducted business in the State of Washington, and/or has engaged in continuous and systematic activities in the State of Washington.
- 7. This Court has personal jurisdiction over Amazon Web Services, Inc. because Amazon Web Services, Inc. has committed, and continues to commit, acts of infringement in the State of Washington, has its principal place of business in the State of Washington, has conducted business in the State of Washington, and/or has engaged in continuous and systematic activities in the State of Washington.
- 8. Venue is proper under 28 U.S.C. §§ 1391(b)(1) and (c) and 1400(b) because Defendants are deemed to reside in this district and/or have committed acts of infringement in this district.

BACKGROUND

- 9. Appistry, founded in 2001 in St. Louis, developed and owns all of the intellectual property rights to an award-winning "fabric" computing technology that is protected at least in part by the Asserted Patents (the "Appistry Technology"). The Appistry Technology was a breakthrough technology in high performance computing.
- 10. Appistry expended substantial investment to develop the Appistry Technology. This investment resulted in a successful ongoing business, headquartered in St. Louis,

specializing in high performance computing (HPC) technology utilized in areas such as intelligence, defense, life sciences, financial services, and transportation.

- 11. In 2004, Appistry contacted Amazon to offer Amazon a license to the Appistry Technology. In an effort to engage in such discussions, Appistry and Amazon entered into a non-disclosure agreement drafted by Amazon.
- 12. An initial meeting was held at Amazon's Seattle office in approximately August of 2004. At that time, Appistry generally explained Appistry's capabilities, with a particular emphasis on the transactional reliability of the Appistry Technology. Present at the initial inperson meeting were approximately three Appistry employees and approximately four Amazon employees. The Amazon employees were identified as individuals involved in the development and engineering of Amazon's cloud services.
- 13. At some point prior to September 14, 2004, Amazon indicated that it was interested in the Appistry Technology in connection with Amazon's business plans to offer a strategic business initiative central to Amazon's future.
- 14. On or before September 14, 2004, Appistry informed Amazon that it had various patent applications pending on the Appistry Technology.
- 15. Because of Amazon's expressed interest at the initial meeting, a second meeting was held on September 14, 2004 at Amazon's Seattle office. Werner Vogels, Amazon's Director of Systems Research, was present at the second meeting along with approximately 10 to 12 of Amazon's senior technical engineers directly involved in Amazon's cloud services.
- 16. The September 2004 meeting lasted approximately four hours. During the course of the meeting, Amazon employees asked numerous, highly detailed questions about the functionality of the Appistry Technology. Amazon's questions demonstrated Amazon's desire for a detailed understanding and knowledge of the Appistry Technology.
- 17. Although Appistry was initially hesitant to disclose the minute details of the Appistry Technology, Mr. Vogels and other Amazon employees stated that Amazon would be skeptical of Appistry's technical abilities if Appistry did not disclose all of the details. Mr. PLAINTIFF'S COMPLAINT 3

Vogels and other Amazon employees also stated that Amazon needed all of the details in order to fully evaluate the value of the Appistry Technology and to have faith in Appistry's engineers to build a quality system.

- 18. Following the above statements from Mr. Vogels and other Amazon employees, Appistry disclosed very specific algorithms, flow charts, and branches in the decision tree of the Appistry Technology. Amazon engineers asked many very specific questions about the Appistry Technology, which Appistry answered. Appistry provided this information believing such disclosures were protected under the non-disclosure agreement with Amazon and under its pending patent applications.
- 19. The level of detail provided to Amazon was sufficient to copy and build the Appistry Technology.
- 20. Appistry demonstrated proof of concept of the Appistry Technology to various Amazon engineers and at least one Amazon development manager on September 15, 2004. This proof of concept demonstration included uploading certain portions of the Appistry Technology on Amazon computers to demonstrate the system.
- 21. Subsequent to the September 2004 meetings, Appistry corresponded with Amazon in an effort to formalize the anticipated partnership with Amazon. Initially, Amazon indicated its engineers were "evaluating" the Appistry Technology. Eventually, Appistry learned that Amazon had no interest in licensing the technology.
- 22. Subsequently, Appistry learned that Amazon had copied the Appistry Technology for various Amazon services.
- 23. For example, Appistry learned that Amazon copied the Appistry Technology into Amazon's workflow systems such as Simple Workflow Service ("SWF").
- 24. Upon information and belief, Appistry also copied the Appistry Technology into another internal workflow system called "Herd." See Exhibit 17, printout of Amazon website advertising a job opening for its "Herd" team. The "Herd" team offers "a workflow platform as part of the Distributing Computing Services (DCS) which many teams in the company have PLAINTIFF'S COMPLAINT 4

come to rely on for building scalable and highly available applications" and is "one of the largest transactions processing systems inside Amazon and are used by teams such as Amazon Ordering, Amazon Fulfillment systems, Kindle, Digital media teams, Merchant systems and many more." "The Herd team is at the heart of the e-Commerce platform group which runs THE largest e-Commerce platform in the world."

25. Appistry believes that Amazon may have copied the Appistry Technology into predecessor workflow systems after the 2004 meetings before copying the Appistry Technology into SWF and Herd.

THE ASSERTED PATENTS

- 26. Appistry incorporates paragraphs 1 through 25 herein by reference.
- 27. Each claim of the Asserted Patents, attached hereto as Exhibits 1-2 and incorporated herein by reference, claims a new and novel mechanism, system, and/or method over the prior art for distributed computing. *See* Exhibit 3 attached hereto and incorporated herein by reference, a declaration from Dr. Matthew Green, one of ordinary skill in the art of the Asserted Patents, ¶ 13; Exhibit 16, 7/7/15 Green Decl., incorporated herein by reference, ¶ 13.
- 28. Each claim of the Asserted Patents claims a new, novel, specific, and inventive mechanism, system, and/or method for distributed computing that overcomes problems of previously existing platforms for mission-critical computing. Ex. 3, Green Decl., ¶ 14; Ex. 16, 7/7/15 Green Decl., ¶ 14.
- 29. Each claim of the Asserted Patents claims a new, novel, specific, and inventive mechanism, system, and/or method for distributed computing that enhances the capabilities of prior art computers in order to solve computing-specific problems and improve how prior art computers function. Ex. 3, Green Decl., ¶ 15; Ex. 16, 7/7/15 Green Decl., ¶ 15.
- 30. For example, each claim of the Asserted Patents claims a new, novel, specific, and inventive mechanism, system, and/or method for distributed computing that solves problems in mission-critical computing that existed with prior art mainframes, high-availability PLAINTIFF'S COMPLAINT 5

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computers, Unix-based servers, distributed super computers, and personal computers (PCs). Ex. 3, Green Decl., ¶ 17; Ex. 16, 7/7/15 Green Decl., ¶ 17.

- 31. These prior art computing systems failed to provide acceptable levels of performance and reliability for mission-critical computing, or did so at great expense and complication. Ex. 3, Green Decl., ¶ 18; Ex. 16, 7/7/15 Green Decl., ¶ 18.
- 32. To achieve acceptable levels of performance and reliability for mission-critical computing, these prior art computing systems required large numbers of highly trained engineers, required custom hardware or components that were expensive and difficult to maintain, were expensive and difficult to upgrade, and/or required expensive and hard-to-find engineers. Ex. 3, Green Decl., ¶ 19; Ex. 16, 7/7/15 Green Decl., ¶ 19.
- 33. These are problems that arise specifically in the realm of distributed computing and are specific to computers themselves. Ex. 3, Green Decl., ¶ 20.
- 34. Each claim of the Asserted Patents is rooted in computing technology in order to overcome these problems specifically arising in distributed computing and claims a new, novel, specific, and inventive mechanism, system, and/or method for distributed computing that improves the functionality of computers themselves and results in improved levels of performance and reliability for mission-critical computing without the associated cost and complication attendant to prior art computing systems for mission-critical computing. Ex. 3, Green Decl., ¶ 21; Ex. 16, 7/7/15 Green Decl., ¶ 21.
- 35. The significant inventive contribution of each claim of the Asserted Patents is evidenced by, among other things, the fact that Amazon met with Appistry in 2004 to discuss the Appistry Technology, including technology covered by the Asserted Patents, and thereafter copied the Appistry Technology into its systems. *See* paragraphs 9-25, which are incorporated by reference herein.
- 36. No claimed invention of the Asserted Patents exists in the prior art. Ex. 3, Green Decl., ¶ 22; Ex. 16, 7/7/15 Green Decl., ¶ 22.

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- 37. No claim of the Asserted Patents is directed to command and control. Ex. 3. Green Decl., ¶ 23; Ex. 16, 7/7/15 Green Decl., ¶ 23.
- 38. No claim of the Asserted Patents is directed to project or resource management. Ex. 3, Green Decl., ¶ 23; Ex. 16, 7/7/15 Green Decl., ¶ 23.
- 39. No claim of the Asserted Patents is directed to a fundamental economic concept or a conventional business practice, such as project or resource management or command and control. Ex. 3, Green Decl., ¶ 23; Ex. 16, 7/7/15 Green Decl., ¶ 23.
- 40. No claim of the Asserted Patents recites a mathematical concept or a mental process such as comparing or categorizing information that can be performed in the human mind, or by a human using a pen and paper. The limitations of the claims of the Asserted Patents are not merely attempting to limit a mathematical algorithm, fundamental economic concept, conventional business practice, project or resource management, or command and control to a particular technological environment. Instead, the claim limitations recite a specific application that improves the functioning of distributed computing itself. See Ex. 3, Green Decl., ¶ 23.
- 41. No claim of the Asserted Patents recites a mathematical concept such as a mathematical algorithm, mathematical relationship, mathematical formula or calculations.
- 42. No claim of the Asserted Patents recites an idea of itself or a mental process such as comparing or categorizing information that can be performed in the human mind or by a human using a pen and paper.
- 43. No claim of the Asserted Patents recites a method of organizing human activity such as managing relationships or transactions between people, social activities, and human behavior.
- 44. The limitations of the claims of the Asserted Patents are not merely attempting to limit a method of organizing human activity or an idea of itself to a particular technological environment.

- 45. There is no non- or pre-computing analog for any claim of the Asserted Patents. Ex. 3, Green Decl., ¶ 24; Ex. 16, 7/7/15 Green Decl., ¶ 24.
- 46. No claim of the Asserted Patents takes a practice known from the non- or precomputing world and simply adds a requirement that it be practiced with computers. Ex. 3, Green Decl., ¶ 25; Ex. 16, 7/7/15 Green Decl., ¶ 25.
- 47. No claim of the Asserted Patents utilizes a generic computer to apply a fundamental economic concept or conventional business practice. No claim of the Asserted Patents utilizes project or resource management or command and control or amount to no more than merely implementing the idea of project or resource management or command and control using generic computer components. Ex. 3, Green Decl., ¶ 26; Ex. 16, 7/7/15 Green Decl., ¶ 26.
- 48. No claim of the Asserted Patents can be performed by humans. Ex. 3, Green Decl., ¶ 27; Ex. 16, 7/7/15 Green Decl., ¶ 27.
- 49. Each claim of the Asserted Patents must be performed or implemented on computers. Ex. 3, Green Decl., ¶ 28; Ex. 16, 7/7/15 Green Decl., ¶ 28.
- 50. The subject matter to which each claim of the Asserted Patents is directed is limited to computers; Ex. 16, 7/7/15 Green Decl., ¶ 29.
- 51. No claim of the Asserted Patents is directed to subject matter that has an application outside of the realm of distributed computing. Ex. 3, Green Decl., ¶ 29; Ex. 16, 7/7/15 Green Decl., ¶ 30.
- 52. Defendants admitted in their claim construction brief in a related case that "the Appistry patents claim a specific implementation of a distributed computing system." *Appistry, Inc. v. Amazon.com, Inc., et al.*, Case No. 2:15-CV-00311-MJP (W.D. Wash.), Dkt. # 103.
- 53. Distributed computing itself is what each claim of the Asserted Patent improves upon. Ex. 3, Green Decl., ¶ 30; Ex. 16, 7/7/15 Green Decl., ¶ 31.
- 54. No claim of the Asserted Patents is limited to or covers generic computer components that perform no more than their basic computer functions. No claim of the PLAINTIFF'S COMPLAINT 8

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Asserted Patents is limited to or covers activity by generic computer components that was wellunderstood, routine, or conventional in the prior art, including in the prior art computing systems. Ex. 3, Green Decl., ¶ 31; Ex. 16, 7/7/15 Green Decl., ¶ 32.

- 55. No claim of the Asserted Patents preempts the field of distributed computing. No claim of the Asserted Patents preempts any fundamental economic concept or conventional business practice. Ex. 3, Green Decl., ¶ 32; Ex. 16, 7/7/15 Green Decl., ¶ 33.
- 56. The limitations in each claim of the Asserted Patents when viewed as an ordered combination were not routine, were not conventional, were not well-understood, were not longstanding concepts, and were not fundamental practices in the art prior to September 7, 2002. Ex. 3, Green Decl., ¶ 33; Ex. 16, 7/7/15 Green Decl., ¶ 34.
- 57. Computers are capable of processing information in a distributed manner in ways that are not covered by the asserted claims. For example, many distributed computing projects do not include the ability to perform multi-step processing jobs in which state information is retained and updated between individual processing steps. One notable example of such a processing job was the "SETI At Home" system in which a single processing job – the work of analyzing radio signals – was broken into many work units and distributed to volunteer computers. This task did not employ an ordered set of processing steps with state information recorded and passed to the next computer, since in practice each individual computer performed the same task repeatedly. Similarly, the distributed site distributed net conducted a variety of large-scale computational efforts prior to 2002 in order to break various cryptographic systems. Each of these examples contains a single task conducted by many computers, and does not compute or distribute state information between each of these tasks. Ex. 3, Green Decl., ¶ 34; Ex. 16, 7/7/15 Green Decl., ¶ 35.
- 58. For example, one could perform distributed computing or run an application for project or resource management or command and control on the prior art mainframes, highavailability computers, Unix-based servers, distributed super computers, or personal computers

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(PCs) without infringing upon any claim of the Asserted Patents. Ex. 3, Green Decl., ¶ 35; Ex. 16, 7/7/15 Green Decl., ¶ 36.

- 59. Dr. Green's testimony confirms the above allegations and that the limitations of the claims of the Asserted Patents were not routine or well-understood, were not longstanding concepts, and were not fundamental practices at the time of the invention.
- 60. Each claim of the Asserted Patents constitutes a breakthrough in the field of distributed computing.
- 61. The Appistry Technology, protected by the Asserted Patents, is used by dozens of companies and has resulted in commercial success for Appistry.
- 62. These companies use the Appistry Technology as a result of its breakthrough improvements in field of distributed and mission-critical computing.
- 63. For example, one customer decided to license the Appistry Technology after spending years developing a new computing algorithm.
- 64. Prior art computing solutions were not acceptable platforms for running this algorithm. Prior art computing systems would have taken far too long to run the algorithm and could not adequately handle a failure.
- 65. The customer therefore needed a distributed computing solution that could handle its algorithm with acceptable levels of performance and reliability.
- 66. Recognizing that the Appistry Technology was a significant improvement in the field of distributed, mission-critical computing, the customer adopted the Appistry Technology, which allowed the customer to execute the algorithm with the requisite levels of performance and reliability.
- 67. Amazon's own customers recognize the significant contribution of the Asserted Patents and the Appistry Technology to the field of distributed and mission critical computing.
- 68. Amazon's Simple Workflow Service ("SWF") is covered by the claims of Asserted Patents and infringes the claims of the Asserted Patents, which protect the Appistry Technology.

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categories. Id.

- 77. The CODiE Awards are a peer-recognized program that recognizes software and information companies for achieving excellence. *See* Exhibit 8, attached hereto and incorporated herein by reference, available at http://www.siia.net/codies/2015/about.asp.
- 78. Appistry was also named in 2009 as the winner of the American Business Awards in the category of "Most Innovative Company of the Year in Computer Software & Services Industries" for Appistry Technology protected by the Asserted Patents. *See* Exhibit 9, attached hereto and incorporated herein by reference.

ALLOWANCE OF THE '267 PATENT

- 79. Appistry incorporates paragraphs 1 through 78 herein by reference.
- 80. The United States Patent and Trademark Office ("USPTO") patent examiner who allowed the '267 patent considered whether each claim of the '267 patent claimed patent-eligible subject matter under 35 U.S.C. § 101.
- 81. The patent examiner determined that that each claim of the '267 patent claimed patent-eligible subject matter and allowed each claim of the '267 patent.
- 82. The '267 patent is related to the '746, '959, and '209 patents, each of which claims subject matter similar to the claims of the '267 patent.
- 43. Attached as Exhibits 10 and 11 and incorporated herein by reference are the USPTO's 2014 Interim Eligibility Guidance Quick Reference Sheet (issued in December 2014) and the June 25, 2014 Preliminary Examination Instructions in View of the Supreme Court Decision in *Alice Corporation Pty. Ltd. V. CLS Bank International, et al.*, respectively. The Interim Eligibility Guidance Quick Reference Sheet supplements the June 25, 2014 Preliminary Examination Instructions, as explained by the USPTO. *See* http://www.uspto.gov/patent/laws-and-regulations/examination-policy/2014-interim-guidance-subject-matter-eligibility-0 (attached hereto as Exhibit 12 and incorporated herein by reference).
- 84. The '267 patent was allowed by the examiner on April 16, 2015 and issued on June 2, 2015, after the USPTO issued its Preliminary Eligibility Instructions and Interim Eligibility Requirements for its patent examiners. Attached as Exhibits 13 and 14 are the PLAINTIFF'S COMPLAINT 12

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Notice of Allowance and Issue Notification for the '267 patent, both of which are incorporated herein by reference.

- 85. Upon information and belief, the patent examiner considered the Preliminary Eligibility Instructions and Interim Eligibility Requirements before allowing each claim of the '267 patent.
- 86. The '267 patent was also allowed by the examiner on April 16, 2015 after the examiner had before him Amazon's Motion for Judgment on the Pleadings of Invalidity Under 35 U.S.C. § 101, where Amazon argued that claims 1-5, and 23-27 of the '746 patent and claims 1, 9-11, 13-15, 23, 26, 34, 37-39, 47, and 50-52 of the '209 patent were invalid because they claim patent-ineligible subject matter under 35 U.S.C. § 101 and *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).
- 87. Upon information and belief, the patent examiner considered Amazon's arguments that claims 1-5, and 23-27 of the '746 patent and claims 1, 9-11, 13-15, 23, 26, 34, 37-39, 47, and 50-52 of the '209 patent were invalid because they claim patent-ineligible subject matter under 35 U.S.C. § 101 and *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).
- 88. Attached as Exhibit 15 and incorporated herein by reference is the April 16, 2015 List of References Cited by Applicant and Considered by Examiner, which shows that the patent examiner considered the pleadings from this litigation, which included Amazon's Motion for Judgment on the Pleadings of Invalidity Under 35 U.S.C. § 101.

NO PRIOR ART ANTICIPATES ANY CLAIMS OF THE ASSERTED PATENTS

- 89. Prior to the effective filing date of the Asserted Patents, September 7, 2002, no prior art anticipated any claims of the Asserted Patents. Ex. 3, Green Decl., ¶ 36.
- 90. Prior to the effective filing date of the Asserted Patents, September 7, 2002, no prior art reference disclosed, either expressly or inherently, all of the limitations of the claims of the Asserted Patents and no prior art system was known, in public use or on sale in the

United States that contained all of the limitations of the claims of the Asserted Patents. Ex. 3, Green Decl., ¶ 37.

- 91. One example of a prior art system is called "<u>SETI@home.</u>" Ex. 3, Green Decl., ¶ 38.
- 92. "SETI@home" is recognized as prior art in the Asserted Patents. See, e.g., '959 Patent, Col. 3, Lines 19-59. Ex. 3, Green Decl., ¶ 39.
- 93. "SETI@home" is described in Eric Korpela, et al., SETI@home-Massively Distributed Computing for SETI, COMPUTING IN SCIENCE & ENGINEERING, January/February 2001, at 78. As described in the article "SETI@home" was "the first attempt to use large-scale distributed computing to perform a sensitive search for radio signals from extraterrestrial civilizations." This was done by dividing "a large dataset into small chunks that a personal computer can analyze" and "[i]n this way, we can distribute the work to people willing to donate their spare CPU cycles." Ex. 3, Green Decl., ¶ 40.
- 94. "SETI@home" did not contain all of the limitations of the claims of the Asserted Patents. Ex. 3, Green Decl., ¶ 41.
- 95. Specifically, regarding independent claim 1 of the '959 Patent, "SETI@home" did not contain at least the following elements: the plurality of networked computers comprising a request handler, a plurality of process handlers, and a plurality of task handlers; the processing job comprising a process flow, the process flow including (1) a plurality of processing tasks and (2) state information relating to the processing job; the request handler configured to (1) receive a service request for the processing job, and (2) communicate data representative of the processing job to a process handler; the process handler to which the processing job data was communicated being configured to (1) receive the communicated processing job data, and (2) analyze the processing job data and state information to determine a sequence of processing tasks to be performed by the task handlers; the task handlers

When quoting from the '959 patent herein, similar statements are made in both of the Asserted Patents.

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configured to (1) perform the processing tasks of the processing job in accordance with the determined sequence, and (2) generate updated state information in response to the performed processing tasks; wherein the request handler is further configured to (1) maintain state information for the processing job based on the updated state information, (2) determine whether a fault exists, and (3) in response to a determination that a fault exists, initiate a recovery procedure based on the maintained state information for the processing job. Ex. 3, Green Decl., ¶ 42.

- 96. Specifically, regarding independent claim 11 of the '959 Patent, "SETI@home" did not contain at least the following elements: receiving a service request for the processing job, the processing job comprising a process flow, the process flow including (1) a plurality of processing tasks and (2) state information relating to the processing job; the request handler (1) receiving a service request for the processing job, and (2) communicating data representative of the processing job to a process handler; the process handler to which the processing job data was communicated (1) receiving the communicated processing job data, and (2) analyzing the processing job data and state information to determine a sequence of processing tasks to be performed by the task handlers; the task handlers (1) performing the processing tasks of the processing job in accordance with the determined sequence, and (2) generating updated state information in response to the performed processing tasks; the request handler (1) maintaining state information for the processing job based on the updated state information, (2) determining whether a fault exists, and (3) in response to a determination that a fault exists, initiating a recovery procedure based on the maintained state information for the processing job. Ex. 3, Green Decl., ¶ 43.
- 97. Specifically, regarding independent claim 21 of the '959 Patent, "SETI@home" did not contain at least the following elements: the request handler receiving a service request for the processing job, the processing job comprising a process flow, the process flow including (1) a plurality of processing tasks and (2) state information relating to the processing job; a process handler coordinating an execution of the processing tasks by a plurality of the task PLAINTIFF'S COMPLAINT - 15 LANE POWELL PC

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handlers; the task handlers (1) executing the processing tasks, and (2) generating updated state information for the processing job in response to the executing step; as the processing tasks are executed by the task handlers, redundantly storing updated state information across a plurality of different processes; determining whether a failure has occurred; and in response to a determination that a failure has occurred, (1) retrieving a copy of the redundantly stored state information, and (2) resuming the processing job in accordance with the retrieved state information. Ex. 3, Green Decl., ¶ 44.

- 98. Specifically, regarding independent claim 27 of the '959 Patent, "SETI@home" did not contain at least the following elements: the plurality of networked computers comprising a request handler, a plurality of process handlers, and a plurality of task handlers; the processing job comprising a process flow, the process flow including (1) a plurality of processing tasks and (2) state information relating to the processing job; the request handler configured to (1) receive a service request for the processing job, and (2) communicate data representative of the processing job to a process handler; the process handler to which the processing job data was communicated being configured to (1) receive the communicated processing job data, and (2) analyze the processing job data and state information to determine a sequence of processing tasks to be performed by the task handlers; the task handlers configured to (1) perform the processing tasks of the processing job in accordance with the determined sequence, and (2) generate updated state information in response to the performed processing tasks; wherein the process handler to which the processing job data was communicated is further configured to (1) maintain state information for the processing job based on the updated state information, (2) determine whether a fault exists, and (3) in response to a determination that a fault exists, initiate a recovery procedure based on the maintained state information for the processing job. Ex. 3, Green Decl., ¶ 45.
- 99. Specifically, regarding independent claim 28 of the '959 Patent, "SETI@home" did not contain at least the following elements: receiving a service request for the processing job, the processing job comprising a process flow, the process flow including (1) a plurality of PLAINTIFF'S COMPLAINT - 16 LANE POWELL PC

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processing tasks and (2) state information relating to the processing job; the request handler (1) receiving a service request for the processing job, and (2) communicating data representative of the processing job to a process handler; the process handler to which the processing job data was communicated (1) receiving the communicated processing job data, and (2) analyzing the processing job data and state information to determine a sequence of processing tasks to be performed by the task handlers; the task handlers (1) performing the processing tasks of the processing job in accordance with the determined sequence, and (2) generating updated state information in response to the performed processing tasks; the process handler to which the processing job data was communicated (1) maintaining state information for the processing job based on the updated state information, (2) determining whether a fault exists, and (3) in response to a determination that a fault exists, initiating a recovery procedure based on the maintained state information for the processing job. Ex. 3, Green Decl., ¶ 46.

Specifically, regarding independent claim 29 of the '959 Patent, "SETI@home" 100. did not contain at least the following elements: the plurality of networked computers comprising a request handler, a plurality of process handlers, and a plurality of task handlers; the process handlers being resident on a plurality of different networked computers; the task handlers being resident on a plurality of different networked computers; the processing jobs having a plurality of associated process flows, the process flows including (1) a plurality of processing tasks and (2) logic configured to define a relationship between the processing tasks of the same process flow; the request handler configured to (1) receive a plurality of service requests for the processing jobs, (2) store state information for the processing jobs, and (3) select a plurality of process handlers from among the process handlers for servicing the processing jobs; the selected process handlers configured to (1) analyze the state information for the processing jobs to determine whether any processing tasks in the process flows remain to be performed based on the logic for the process flows, (2) in response to the state information analysis indicating that a processing task remains for the process flow of a processing job, identify a processing task to be performed for the process flow having the PLAINTIFF'S COMPLAINT - 17 LANE POWELL PC

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remaining processing task, and (3) in response to the state information analysis indicating that no processing tasks remain for the process flow of a processing job, determine that the processing job corresponding to the process flow with no remaining processing tasks has been completed; the task handlers configured to perform the identified processing tasks to generate a plurality of task results, the task results causing an update to the state information for the processing job. Ex. 3, Green Decl., ¶ 47.

- 101. As the dependent claims of the '959 Patent contain the limitations of the independent claims above, for at least the same reasons identified above, "SETI@home" did not contain all of the limitations of the dependent claims of the '959 Patent. Ex. 3, Green Decl., ¶ 48.
- 102. Specifically, regarding independent claim 1 of the '267 Patent, "SETI@home" did not contain at least the following elements: the plurality of networked computers comprising a request handler, a plurality of process handlers, and a plurality of task handlers; the process handlers being resident on a plurality of different networked computers; the task handlers being resident on a plurality of different networked computers; the processing jobs having a plurality of associated process flows, the process flows including (1) a plurality of processing tasks and (2) logic configured to define a relationship between the processing tasks of the same process flow; the request handler configured to (1) receive a plurality of service requests for the processing jobs, (2) store state information for the processing jobs, and (3) communicate data relating to the processing jobs to a plurality of the process handlers; the process handlers to which the data relating to the processing jobs were communicated being configured to (1) analyze the state information for the processing jobs to determine whether any processing tasks in the process flows remain to be performed based on the logic for the process flows, (2) in response to the state information analysis indicating that a processing task remains for the process flow of a processing job, identify a processing task to be performed for the process flow having the remaining processing task, and (3) in response to the state information analysis indicating that no processing tasks remain for the process flow of a processing job, PLAINTIFF'S COMPLAINT - 18 LANE POWELL PC

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determine that the processing job corresponding to the process flow with no remaining processing tasks has been completed; the task handlers configured to perform the identified processing tasks to generate a plurality of task results; and wherein the request handler is further configured to store updated state information for the processing jobs, the updated stored state information being based on the task results. Ex. 3, Green Decl., ¶ 49.

Specifically, regarding independent claim 52 of the '267 Patent, "SETI@home" 103. did not contain at least the following elements: receiving a service request for a processing job, the processing job having an associated process flow, the process flow including (1) a plurality of processing tasks and (2) logic configured to define a relationship between the processing tasks of the process flow; the plurality of networked computers comprising a request handler, a plurality of process handlers, and a plurality of task handlers; the process handlers being resident on a plurality of different networked computers; the task handlers being resident on a plurality of different networked computers; wherein the executing step comprises: the request handler storing state information for the processing job; the request handler communicating data for the processing job to a process handler; the process handler to which the data for the processing job was communicated (1) analyzing the state information for the processing job to determine whether any processing task in the process flow remains to be performed based on the logic for the process flow, (2) in response to the state information analysis indicating that a processing task remains for the process flow, identifying a processing task to be performed, and (3) in response to the state information analysis indicating that no processing task remains for the process flow, determining that the processing job has been completed; the task handlers performing the identified processing tasks to generate a plurality of task results; and updating the stored state information based on the task results. Ex. 3, Green Decl., ¶ 50.

104. Specifically, regarding independent claim 72 of the '267 Patent, "SETI@home" did not contain at least the following elements: receiving a plurality of service requests for a plurality of processing jobs, the processing jobs having a plurality of associated process flows, the process flows including (1) a plurality of processing tasks and (2) logic configured to define PLAINTIFF'S COMPLAINT - 19 LANE POWELL PC

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a relationship between the processing tasks of the same process flow; the plurality of networked computers comprising a request handler, a plurality of process handlers, and a plurality of task handlers; the process handlers being resident on a plurality of different networked computers; the task handlers being resident on a plurality of different networked computers; wherein the executing step comprises: the request handler storing state information for the processing jobs; the request handler communicating data relating to the processing jobs to a plurality of the process handlers; the process handlers to which the data relating to the processing jobs were communicated (1) analyzing the state information for the processing jobs to determine whether any processing tasks in the process flows remain to be performed based on the logic for the process flows, (2) in response to the state information analysis indicating that a processing task remains for the process flow of a processing job, identifying a processing task to be performed for the process flow having the remaining processing task, and (3) in response to the state information analysis indicating that no processing tasks remain for the process flow of a processing job, determining that the processing job corresponding to the process flow with no remaining processing tasks has been completed; the task handlers performing the identified processing tasks to generate a plurality of task results; and updating the stored state information based on the task results. Ex. 3, Green Decl., ¶ 51.

105. Specifically, regarding independent claim 123 of the '267 Patent, "SETI@home" did not contain at least the following elements: the plurality of networked computers comprising a request handler, a plurality of process handlers, and a plurality of task handlers; the process handlers being resident on a plurality of different networked computers; the task handlers being resident on a plurality of different networked computers; the processing jobs having a plurality of associated process flows, the process flows including (1) a plurality of processing tasks and (2) logic configured to define a relationship between the processing tasks of the same process flow; wherein the request handler is configured to (1) receive a plurality of service requests for the processing jobs, and (2) store state information for the processing jobs; wherein the process handlers are configured to volunteer for servicing the PLAINTIFF'S COMPLAINT - 20 LANE POWELL PC

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processing jobs based on their availabilities; wherein the request handler is further configured to communicate data relating to the processing jobs to a plurality of the process handlers that volunteered; wherein the process handlers to which the data relating to the processing jobs were communicated are configured to (1) analyze the state information for the processing jobs to determine whether any processing tasks in the process flows remain to be performed based on the logic for the process flows, (2) in response to the state information analysis indicating that a processing task remains for the process flow of a processing job, identify a processing task to be performed for the process flow having the remaining processing task, and (3) in response to the state information analysis indicating that no processing tasks remain for the process flow of a processing job, determine that the processing job corresponding to the process flow with no remaining processing tasks has been completed; wherein the task handlers are configured to volunteer for performing tasks based on their availabilities; wherein a plurality of the task handlers that volunteered are configured to perform the identified processing tasks to generate a plurality of task results; wherein the request handler is further configured to store updated state information for the processing jobs, the updated stored state information being based on the task results. Ex. 3, Green Decl., ¶ 52.

106. As the dependent claims of the '267 Patent contain the limitations of the independent claims above, for at least the same reasons identified above, "SETI@home" did not contain all of the limitations of the dependent claims of the '267 Patent. Ex. 3, Green Decl., ¶ 53.

THE CLAIMS OF THE ASSERTED PATENTS ARE NOT OBVIOUS

- 107. The differences between the subject matter recited in the claims of the Asserted Patents and the prior art are not such that the subject matter as a whole would have been obvious before September 7, 2002 to a person having ordinary skill in the art in the field of distributed computing. Ex. 3, Green Decl., ¶ 54.
- 108. A skilled artisan would not have had reason to combine the teaching of the prior art, such as "SETI@home" which used PC's to perform distributed computing, to achieve the PLAINTIFF'S COMPLAINT 21

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inventions recited in the claims of the Asserted Patents and/or would not have had a reasonable expectation of success from doing so for at least the reasons noted in the '959 Patent, Col. 3, line 42-Col. 4, Line18, including: "the problem with PC's is that they do not satisfy the needs of businesses and other organizations when it comes to scalability, availability, and predictability" and "few organizations even consider using PC's for mission-critical computing." Ex. 3, Green Decl., ¶ 55.

- 109. Secondary considerations of non-obviousness also show that the subject matter recited in the claims of the Asserted Patents are not such that the subject matter as a whole would have been obvious before September 7, 2002 to a person having ordinary skill in the art in the field of distributed computing. Ex. 3, Green Decl., ¶ 56.
- 110. Long felt but unsolved need and failure of others support non-obviousness of the claims of the Asserted Patents. Ex. 3, Green Decl., ¶ 57.
- 111. For example, there was a demand for a reliable computing framework and platform with improved levels of performance and reliability at a lower cost than prior art solutions (see, e.g., '959 Patent, Col. 5, Lines 18-22), but, as noted in the specification of the '959 Patent (Col. 1, Line 33 to Col. 5, Line 22) and the other Asserted Patents, others tried and failed to satisfy that demand with a feasible solution. Ex. 3, Green Decl., ¶ 58.
- 112. Commercial success of products covered by claims of the Asserted Patents supports non-obviousness of the claims of the Asserted Patents. Ex. 3, Green Decl., ¶ 59.
- 113. Many of Appistry's customers use Appistry Technology that Appistry believes is covered by claims of the Asserted Patents. Ex. 3, Green Decl., ¶ 60.
- Asserted Patents supports non-obviousness of the claims of the Asserted Patents. For example, Appistry was selected in 2009 as a finalist in the 22nd Annual CODiE Awards for the Appistry CloudIQ platform, which Appistry believes is covered by claims of the Asserted Patents. Appistry's platform was chosen from more than 850 nominations by 600 companies across 71 categories. Ex. 3, Green Decl., ¶ 61.

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- 115. The CODie Awards are a peer-recognized program that recognizes software and information companies for achieving excellence. Ex. 3, Green Decl., ¶ 62.
- 116. Appistry was also named in 2009 as the winner of the American Business Awards in the category of "Most Innovative Company of the Year in Computer Software & Services Industries" for Appistry Technology protected by the Asserted Patents. Ex. 3, Green Decl., ¶ 63.
- 117. Amazon's interest in Appistry's products that Appistry believes are covered by the claims of the Asserted Patents supports non-obviousness of the claims of the Asserted Patents. Ex. 3, Green Decl., ¶ 64.
- 118. In 2004, Appistry contacted Amazon to offer Amazon a license to Appistry technology Ex. 3, Green Decl., ¶ 65.
- 119. In 2004, meetings were held between Amazon and Appistry where Appistry disclosed very specific algorithms, flow charts, and other information about Appistry's patented technology to Amazon. Subsequent to the meetings, Appistry learned that Amazon had no interest in licensing the technology. Ex. 3, Green Decl., ¶ 66.
- 120. Appistry believes that Amazon copied Appistry's product technology into Amazon workflow software/hardware systems such as Simple Workflow and Herd. Ex. 3, Green Decl., ¶ 67.
- 121. The patentability of the claims of the Asserted Patents is further supported by the Examiner's findings that the claims of the Asserted Patents are allowable and that "the prior art of record does not teach or suggest or render obvious ...the independent claims [of the '959 Patent]." Ex. 3, Green Decl., ¶ 69.

<u>COUNT I</u> (INFRINGEMENT OF U.S. PATENT NO. 8,682,959)

- 122. Appistry incorporates paragraphs 1 through 121 herein by reference.
- 123. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, et seq.

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- 124. Appistry is the owner of the '959 patent, entitled "System and Method for Fault Tolerant Processing of Information via Networked Computers including Request Handlers, Process Handlers, and Task Handlers," with ownership of all substantial rights in the '959 patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement. A true and correct copy of the '959 patent is attached as Exhibit 1.
- 125. The '959 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
- patent in this judicial district and/or elsewhere in the United States, including at least claim 29, without consent or authorization of Appistry, by or through importing, making, using, offering to sell, and/or selling products, devices, and/or distributed computing systems, including but not limited to Amazon's Amazon Elastic Compute Cloud ("EC2"), and workflow systems such as Simple Workflow Service ("SWF") and Herd that infringe at least claim 29 of the '959 patent.
- 127. Appistry has been damaged as a result of Amazon's infringing conduct as described herein. Amazon is, thus, liable to Appistry in an amount that adequately compensates Appistry for Amazon's infringement, which by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court pursuant to 35 U.S.C. § 284.
- 128. Amazon's actions complained of herein will continue unless Amazon is enjoined by this Court.

COUNT II (INFRINGEMENT OF U.S. PATENT NO. 9,049,267)

- 129. Appistry incorporates paragraphs 1 through 128 herein by reference.
- 130. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, et seq.

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- 131. Appistry is the owner of the '267 patent, entitled "System and Method for Processing Information via Networked Computers including Request Handlers, Process Handlers, and Task Handlers," with ownership of all substantial rights in the '267 patent, including the right to exclude others and to enforce, sue and recover damages for past and future infringement. A true and correct copy of the '267 patent is attached as Exhibit 2.
- 132. The '267 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
- patent in this judicial district and/or elsewhere in the United States, including at least claim 1, without consent or authorization of Appistry, by or through importing, making, using, offering to sell, and/or selling products, devices, and/or distributed computing systems, including but not limited to Amazon's Amazon Elastic Compute Cloud ("EC2"), and workflow systems such as Simple Workflow Service ("SWF") and Herd that infringe at least claim 1 of the '267 patent.
- 134. Appistry has been damaged as a result of Amazon's infringing conduct as described herein. Amazon is, thus, liable to Appistry in an amount that adequately compensates Appistry for Amazon's infringement, which by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court pursuant to 35 U.S.C. § 284.
- 135. Amazon's actions complained of herein will continue unless Amazon is enjoined by this Court.

WILLFUL INFRINGEMENT

- 136. Appistry incorporates paragraphs 1 through 135 herein by reference.
- 137. On information and belief, Defendants have a pattern and practice of meeting with inventors to obtain information regarding their inventions and then later copying the inventions.
- 138. At least by September 2004, Amazon knew that Appistry had filed its applications for the Asserted Patents.

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- 139. Amazon willfully and deliberately copied the Appistry Technology, including technology covered by the Asserted Patents, thereby willfully and deliberately infringing the Asserted Patents.
- 140. Upon information and belief, Amazon has infringed and continues to infringe the Asserted Patents despite an objectively high likelihood that its actions constitute infringement of the Asserted Patents and a subjective knowledge or obviousness of such risk.
- 141. At least as early as June 18, 2015 or before, Amazon had knowledge of the Asserted Patents and continued to infringe the Asserted Patents.
- 142. In light of paragraphs 9 through 25 incorporated herein, including Amazon's actions related to copying and compliance with the parties' non-disclosure agreement and actions taken during and after the parties' meetings, Appistry intends to take discovery on the issue of willful infringement—including deliberate actions taken by Amazon to learn of the Asserted Patents or to avoid learning of the Asserted Patents—and, if warranted after such discovery, Appistry will seek to add allegations regarding willful blindness by Amazon in further support of Appistry's willful infringement allegations.

ADDITIONAL ALLEGATIONS

- 143. Appistry has been damaged as a result of Amazon's infringing conduct described herein. Amazon is liable to Appistry in an amount that adequately compensates Appistry for Amazon's infringing conduct, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by the Court under 35 U.S.C. § 284.
- 144. Amazon's actions complained of herein will continue unless Amazon is enjoined by this Court.
 - 145. This case is exceptional pursuant to the provisions of 35 U.S.C. § 285.
 - 146. Appistry has complied with 35 U.S.C. § 287.
- 147. Amazon's actions complained of herein are causing irreparable harm and monetary damage to Appistry and will continue to do so unless and until Amazon is enjoined and restrained by this Court.

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JURY DEMAND

Appistry hereby requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

Appistry requests that this Court find in its favor and against Amazon, and that this Court grant Appistry the following relief:

- a. Enter judgment for Plaintiff on this Complaint;
- b. Enter judgment that one or more claims of the '959 patent has been infringed by Amazon;
- c. Enter judgment that one or more claims of the '267 patent has been infringed by Amazon;
- d. Enter judgment that Amazon's infringement was willful;
- e. Enter judgment that Amazon account for and pay to Appistry all damages to, and costs incurred by, Appistry because of Amazon's infringing activities and other conduct complained of herein;
- f. Award Plaintiff damages resulting from Amazon's infringement in accordance with 35 U.S.C. § 284;
- g. Enter a permanent injunction enjoining Amazon and its offices, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or participation with them, from infringing or inducing infringement of the '959 patent and the '267 patent or, in the alternative, judgment that Amazon account for and pay to Appistry a reasonable royalty and an ongoing post judgment royalty because of Amazon's past, present and future infringing activities and other conduct complained of herein;
- h. Grant Appistry pre-judgment and post-judgment interest on the damages caused by Amazon's infringing activities and other conduct complained of herein;
- i. Treble the damages in accordance with the provisions of 35 U.S.C. § 284;

1	J.	Find the case to be exceptional under the provisions of 35 U.S.C. § 285; and	
2	k.	k. Grant Appistry such other and further relief as the Court may deem just and	
3	proper under the circumstances.		
4	DATED: Se	eptember 3, 2015	Respectfully submitted,
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